



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,054	11/25/2003	Sakari Poussa	39700-606001US / NC3991US	4194
64046 7590 07/08/2009 MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C ONE FINANCIAL CENTER BOSTON, MA 02111			EXAMINER RAHIM, MONJUR	
			ART UNIT 2434	PAPER NUMBER
			MAIL DATE 07/08/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,054	Applicant(s) POUSSA ET AL.	
	Examiner MONJOUR RAHIM	Art Unit 2434	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-12 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12 and 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment and argument filed on **16 March 2009**.
2. **Claims 1-8, 10-12, 14-26** remain rejected.
3. **Claims 1, 10, 14, 18, 22-23** have been amended.

Responses to the Argument

4. The applicant's arguments filed on **16 March, 2009** have been fully considered but they are not persuasive. In the Remarks, the applicant has argued in substance:

Arguments (Page 1-8):

- (a) *No arguments were made but applicant explained the invention in detail.*

Response:

- (a) N/A

Arguments (Page 8-15):

(a) *"Leung fails to describe a distribution of the actual internet protocol security service and its associated key management to different device. Specially, Leung fails to describe or suggest an arrangement which the security association management application divided into a management client and a management server".*

(b) *"The teaching of Leung fails to mention that the security association or authentication services are handled by the server's internet security service".*

(c) *"Leung fails to discloses or suggest, "at least one management client configured to issue, in response communication received at said application device from a user equipment via a session key management key protocol".*

Response:

(a) By the definition of "internet protocol security" means how or what rules would play in order to communicate securely in remote environment. The rules described by Leung how a security association may be sent to the network device to permit authentication of the mobile node. Alternatively, authentication of the mobile node may be performed at the server by

Art Unit: 2434

applying the security association. So, this is the same function as in current claim. (Leung col 6, lines 56-60).

(b) Leung clearly mentioned security association between mobile device and server (Leung col 7, lines 16-22).

(c) The response is sent by the server to the home agent (see column 7, lines 33-50). Since, the security associations may comprise keys (see column 7, line 67), this uses a session key management protocol.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, 10, 14, 16, 18, 21-26 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,760,444 to Leung et al.

As per claims 1, 10, 14, 16, 18 Leung discloses an interaction between a Home Agent (the application device comprising management clients) that is connected to a server (the service device) via a communications network (see column 6, lines 24-26) and one or more wireless clients. The Home Agent may contact the server with a request for services such as creating (see column 2, line 58 to column 3, line 16) and managing security associations or authentication services (handled by the server's internet protocol security services) and receive in return a security association (see column 7, lines 16-32). The response is sent by the server to the home agent (see column 7, lines 33-50). Since, the security associations may comprise keys (see column 7, line 67), this uses a session key management protocol.

Leung discloses (Leung, abstract, “The security association may be sent to the network device to permit authentication of the mobile node. Alternatively, authentication of the mobile node may be performed at the server by applying the security association”), where “node” is the unit, as claimed.

In regard to *claim 21*, Leung discloses:

- providing one or more internet protocol security services comprising at least one of authentication services and encryption services from an internet protocol security service unit, wherein said internet protocol security service unit is deployed in a service device (Leung, col 6, lines 29-36, “In addition to providing a centralized server which is capable of storing security-associations for multiple Home Agents, the centralized server may provide further services. By way of example, the centralized server may provide authentication services and/or authorization services. While authentication determines who an entity is, authorization determines what services a user is allowed to perform, or access”);

- receiving security association management requests issued from at least one management client external to said service device and responding, in connection with said providing the one or more internet protocol security services, to said received security association management requests (Leung, col 7, lines 35-47, “At step 714, the server receives the packet identifying the mobile node (e.g., an authorization request packet) from the Home Agent. ... send the security association to the Home Agent for authentication of the mobile node (716). The server constructs a packet in the appropriate format (e.g., a TACACS+ authorization reply packet) and includes the security association”).

In regard to *claim 22*, Leung discloses:

- providing one or more internet protocol security services comprising at least one of authentication services and encryption services from an internet protocol security service unit, said internet protocol security service unit being deployed in a service device (Leung, col 6, lines 29-36, “In addition to providing a centralized server which is capable of storing security-associations for multiple Home Agents, the centralized server may provide further services. By way of example, the centralized server may provide authentication services and/or authorization

Art Unit: 2434

services. While authentication determines who an entity is, authorization determines what services a user is allowed to perform, or access");

- *issuing security association management requests to create and manage, with a session key management protocol, security associations for use by said provided internet protocol security services, from at least one management client, said at least one management client being deployed in an application device* (Leung, col 7, lines 54-61, "The security association may be retrieved from the server each time mobile node 702 sends a fresh registration request. To reduce the effort associated with this, the security association may be temporarily loaded into memory (e.g., a portion of DRAM) of the Home Agent. In this manner, some transfers of security associations from the server to the Home Agent are eliminated");

- *receiving in a management server said security association management requests issued from said at least one management client* (Leung, col 7, lines 35-47, "At step 714, the server receives the packet identifying the mobile node (e.g., an authorization request packet) from the Home Agent. ... appropriate format (e.g., a TACACS+ authorization reply packet) and includes the security association").

- *responding, in connection with said internet protocol security service unit, to said security association management requests received at said management server, said management server being deployed in said service device, wherein said application device is connected to said service device by a communication network* (Leung, col 4, lines 33-45, "While authentication determines who an entity is, authorization determines what services a user is allowed to perform, or access. ... available at <http://www.ietf.org/internet-drafts/draft-grant-tacacs-02.txt>, describes").

In regard to *claim 23*, Leung discloses:

- *issuing, from at least one management client deployed in an application device, security association management requests to create and manage, with a session key management protocol, security associations for use by one or more internet protocol security services comprising at least one of authentication services and encryption services provided by an internet protocol security service unit external to said application device* (Leung, col 7, lines 62-68, "A suitable algorithm for clearing security associations from the Home Agent's memory

Art Unit: 2434

may be employed (e.g., a least recently used (LRU) algorithm). While this approach can reduce traffic between server and Home Agent--and thereby eliminate attendant delay--it must also account for modifications of security associations (e.g., keys) on the server”);

- communicating at least one of said issued security association management requests to a management server external to said application device, said management server configured to respond to said security association management requests in connection with said internet protocol security service unit (Leung, col 10, lines 18-24, “an architecture having a single processor that handles communications as well as routing computations, etc. would also be acceptable. Further, other types of interfaces and media could also be used with the router. Still further, in some cases, the invention can be implemented on network devices other than routers”).

In regard to *claim 24*, Leung discloses:

- providing one or more internet protocol security services comprising at least one of authentication services and encryption services from an internet protocol security service unit, said internet protocol security service unit being deployed in a service device (Leung, col 8, lines 17-26, “FIG. 8 is a process flow diagram illustrating the steps performed .. server are illustrated along vertical line 806. Again, the server is preferably an AAA server that can provide authorization and accounting services as well as authentication services”);

- receiving security association management requests issued from at least one management client external to said service device and responding, in connection with said providing the one or more internet protocol security services, to said received security association management requests (Leung, col 7, lines 35-47, “At step 714, the server receives the packet identifying the mobile node (e.g., an authorization request packet) from the Home Agent.appropriate format (e.g., a TACACS+ authorization reply packet) and includes the security association”).

In regard to *claim 25*, Leung discloses:

- managing means for issuing security association management requests to create and manage, with a session key management protocol, security associations for use by one or more

internet protocol security services comprising at least one of authentication services and encryption services provided by an internet protocol security service means external to said apparatus (Leung, col 7, lines 35-47, “At step 714, the server receives the packet identifying the mobile node (e.g., an authorization request packet) from the Home Agent. the security association”).

- *communicating means for communicating said issued security association management requests to a management server external to said apparatus, said management server configured to respond to said security association management requests in connection with said internet protocol security service means* (Leung, col 10, lines 18-24, “an architecture having a single processor that handles communications as well as routing computations, etc. would also be acceptable. Further, other types of interfaces and media could also be used with the router. Still further, in some cases, the invention can be implemented on network devices other than routers”).

In regard to *claim 26*, Leung discloses:

internet protocol security service means for providing one or more internet protocol security services comprising at least one of authentication services and encryption services (Leung, col 6, lines 32-36, “the centralized server may provide authentication services and/or authorization services. While authentication determines who an entity is, authorization determines what services a user is allowed to perform, or access”);

- *receiving means for receiving security association management requests issued from at least one management client external to said apparatus and for responding, in connection with said internet protocol security service means, to said received security association management requests* 9 Leung, col 7, lines 35-47, “At step 714, the server receives the packet identifying the mobile node (e.g., an authorization request packet) from ... server constructs a packet in the appropriate format (e.g., a TACACS+ authorization reply packet) and includes the security association”).

Art Unit: 2434

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,760,444 to Leung et al.

Regarding claim 7, Leung does not disclose the structure of the network connecting the Home Agents to the servers.

Official notice is given that it is well-known in the art to implement computer connections using a local network.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Leung's invention using a local network.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (See form "PTO-892 Notice of reference cited).

Art Unit: 2434

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONJOUR RAHIM whose telephone number is (571)270-3890. The examiner can normally be reached on 5:30 AM - 3:30 PM (Mo - Th).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz, Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monjour Rahim/

Patent Examiner

Art Unit: 2434

Date: 07/04/2009

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2434